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ANNUAL REPORT

for the fiscal year
ending March 31, 1988

Department of Lands and Forests

91-00252/

REPORT OF THE MINISTER OF LANDS AND FORESTS

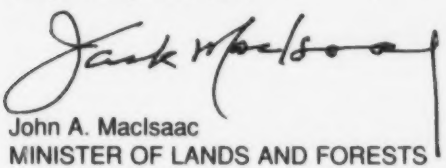
To His Honour

The Honourable Lloyd R. Crouse, P.C.
Lieutenant-Governor of Nova Scotia

May It Please Your Honour:

I have the honour to submit herewith the report of the Department of Lands and Forests for the fiscal year ended March 31, 1988.

Respectfully submitted,



John A. MacIsaac
MINISTER OF LANDS AND FORESTS

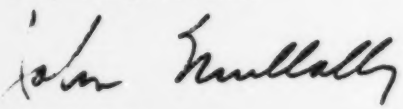
REPORT OF THE
DEPARTMENT OF LANDS AND FORESTS

The Honourable John A. MacIsaac
Minister of Lands and Forests
Halifax, Nova Scotia

Sir:

I have the honour of presenting the Report of the Department of Lands and Forests for the fiscal year ended March 31, 1988.

Respectfully submitted,



John Mullally
DEPUTY MINISTER

CONTENTS

DEPARTMENTAL FUNCTION AND ORGANIZATION 11
- BOARDS AND COMMISSIONS 12
  - Nova Scotia Primary Products Marketing Board 12
  - Commissioner for Forest Enhancement 12
- FOREST POLICY AND LEGISLATION 13
- ACTS ADMINISTERED BY THE DEPARTMENT OF LANDS AND FORESTS 13

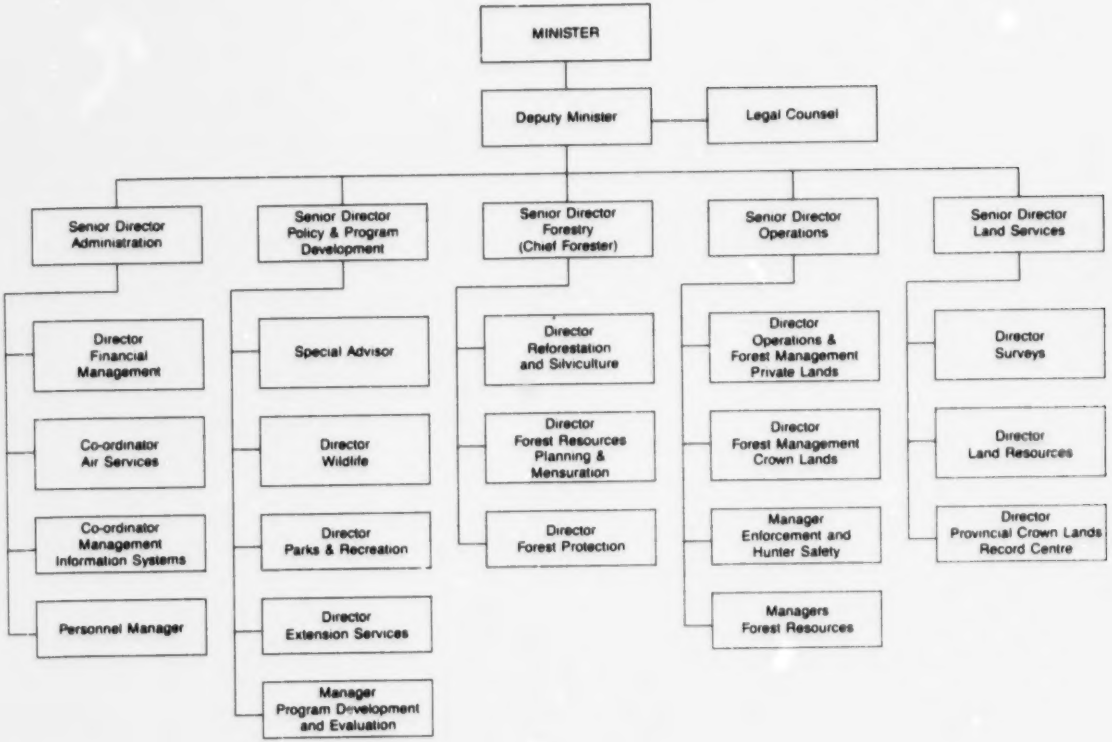
ADMINISTRATION BRANCH 14
- FINANCIAL MANAGEMENT 14
  - Expenditures and Revenues 14
- PERSONNEL ADMINISTRATION 18
- AIR SERVICES 18
- M.I.S. SERVICES 18

POLICY AND PROGRAM DEVELOPMENT BRANCH 20
- WILDLIFE DIVISION 20
  - Non-Game 20
  - Big Game 21
  - Furbearers 21
  - Upland Game and Waterfowl 22
  - Fish Rearing Station 23
  - Provincial Wildlife Parks 23
- PARKS AND RECREATION 24
  - Major Park Planning Projects 24
  - Capital Development 25
  - Park Land Acquisition 25
- EXTENSION SERVICES DIVISION 25
  - Support 25
  - Liaison 26
- FOREST PRODUCTS DEVELOPMENT 27
- URBAN FORESTRY 28

FORESTRY BRANCH 29
- REFORESTATION AND SILVICULTURE 29
  - Nursery Operation 29
  - Tree Breeding 30
  - Entomological Services 30
  - Forest Research 31
- FOREST RESOURCES PLANNING AND MENSURATION DIVISION 32
  - Forest Inventory 32
  - Timber Loan Board 33
  - Scaling 33

FOREST PROTECTION DIVISION 34
OPERATIONS BRANCH 36
Operations Field Offices 36
PRIVATE LAND FOREST MANAGEMENT 39
Individual Assistance 39
Group Forest Management 40
CROWN LAND FOREST MANAGEMENT 41
Pulp and Paper Companies 41
Other Wood-Processing Facilities 41
Unlicensed Crown Lands 42
ENFORCEMENT AND HUNTER SAFETY 43
Hunter Safety Education 43
Law Enforcement 43
LAND SERVICES BRANCH 44
SURVEYS DIVISION 44
Claims and Research Section 44
Plan Examination Section 45
Mapping Section 45
LAND RESOURCES DIVISION 46
PROVINCIAL CROWN LANDS RECORD CENTRE 46
TABLES 49

Department Organization



DEPARTMENTAL FUNCTION AND ORGANIZATION

DEPARTMENT OF LANDS AND FORESTS
P.O. Box 698
Halifax, Nova Scotia
B3J 2T9

MINISTER
Hon. John A. MacIsaac
424-4037

DEPUTY MINISTER
John Mullally
424-4121

The Department of Lands and Forests was established by legislation enacted in 1926. The Department is charged with administering the Forests Act, the Crown Lands Act, the Wildlife Act, the Provincial Parks Act, and various other statutes, including the Forest Enhancement Act, the Primary Forest Products Marketing Board Act, the Beaches Preservation and Protection Act, the Land Titles Clarification Act, and the Scalers Act. From these it derives authority to manage Crown lands, to provide a system of parks, and to protect the forests, wildlife, and beaches. Inherent in the legislation and incumbent upon the Department are responsibilities pertaining to the productivity of the forests generally, the supply of forest products, the conservation of water, and the enhancement of recreational and scenic values.

Subsequent to the introduction of the new forestry policy for Nova Scotia in 1986, a reorganization of the Department of Lands and Forests was initiated. Services are now organized and delivered through five branches:

- Administration
- Policy and Program Development
- Forestry
- Operations
- Land Services

A key change was the establishment of the Forestry Branch. This new branch is responsible for an ongoing forest inventory, forest research, tree breeding, nursery operations, and forest protection.

A Geographic Information System was acquired to improve the forest inventory program, facilitate forest management planning (including sustained yield analysis), and provide information for the priorization of forest stands for harvesting, protection, and silviculture treatments. The system will facilitate the integration of data for wildlife and recreation management and environmental monitoring of forest management activities.

Additional staff were hired in the Policy and Program Development Branch to deal specifically with forest industry research and marketing.

The Department also improved its communications, education, and information capability by establishing an Extension Services Division to serve forestry, wildlife, and outdoor recreational interests.

BOARDS AND COMMISSIONS

NOVA SCOTIA PRIMARY FOREST PRODUCTS MARKETING BOARD
Metropolitan Place
99 Wyse Road, Suite 470
Dartmouth, N.S.
B3A 4S5
(424-5456)

This board is responsible for administering the Primary Forest Products Marketing Act. The purpose is to regulate the marketing of primary forest products on behalf of producers and buyers in the province.

COMMISSIONER OF FOREST ENHANCEMENT
Box 1830
Truro, N.S.
B2N 5Z5
(893-7242)

The office of the Commissioner of Forest Enhancement was created under the Forest Enhancement Act, based on original recommendations found in the report of the Royal Commission on Forestry (1984).

The commissioner facilitates the implementation of forest management programs, and reports annually on the progress of such programs to the Governor in Council through the minister. Other duties include coordinating the activities of the Forest Advisory Council with those of government and performing such functions as are assigned by the minister or the Governor in Council.

FOREST POLICY AND LEGISLATION

The Crown Lands Act was enacted during 1987.

Wildlife: A New Policy for Nova Scotia was implemented by a new Wildlife Act and new Wildlife Regulations passed by the legislature. The policy recognized the recreational, employment and economic benefits that Nova Scotians enjoy from wildlife and their habitats. Subsequent legislation was enacted to ensure the management, protection, and conservation of wildlife for future generations.

ACTS ADMINISTERED BY THE DEPARTMENT OF LANDS AND FORESTS

1. Beaches and Foreshores Act
2. Beaches Preservation and Protection Act
3. Blueberry Associations Act
4. Bowater Mersey Agreement Act
5. Crown Lands Act
6. Forest Enhancement Act
7. Forests Act
8. Halifax Power and Pulp Company Limited Agreement Act
9. Indian Lands Act
10. Kedgemakooge National Park Act
11. Land Holdings Disclosure Act
12. Land Titles Clarification Act
13. Nova Scotia Land Surveyors Act
14. Nova Scotia Pulp Limited Agreement Act
15. Parks Development Act
16. Provincial Parks Act
17. Primary Forest Products Marketing Board Act
18. Scalers Act
19. Scott Maritimes Pulp Limited Agreement Act
20. Wildlife Act

ADMINISTRATION BRANCH

The Administration Branch is responsible for financial management, personnel administration, air services, and automated information services, as well as for implementing administrative policies and procedures on behalf of the minister and deputy minister. It is composed of four divisions: Financial Management, Personnel Administration, Air Services, and Management Information Services.

FINANCIAL MANAGEMENT

The Financial Management Division develops financial systems and provides financial information to all branches of the Department and control agencies of government. The division assists in the preparation of expenditure estimates, prepares the revenue budget, processes departmental accounts payable, administers the collection of revenue, and is responsible for the distribution and sale of game and fishing licenses.

Expenditures and Revenues 1987-88

ORDINARY EXPENDITURES

Administration Branch

Office of Minister and Deputy	$ 300,204	
Administrative Services	215,520	
Financial Management	800,613	
Game Licenses	348,862	
Personnel and Payroll	118,446	
Legal Services	91,652	
Grants and Assistance	127,990	
Air Services	2,266,408	
Forest Operators Assistance	897,237	
Office of Commissioner of Forest Enhancement	137,666	
Advisory Councils	22,743	$ 5,327,341

Policy and Program Development Branch

Administration		
Branch Administration	$ 291,551	
Marketing and Strategic Studies	40,350	
Extension Services	45,412	
Education and Information	382,933	
Urban Forestry	26,440	
Silviculture Training	186,871	
Wildlife Management Planning	684,458	
Fish Rearing Station/Park	166,755	
Wildlife Parks	683,028	$ 2,507,798

Forestry Branch

Administration		
Branch Administration	$ 642,753	
Forest Nurseries	2,134,106	
Tree Breeding	431,094	
Insect and Pathogens	1,068,690	
Resource Management Planning and Coordination	467,038	
Forest Inventory	816,739	
Timber Loan Board	22,730	
Scaling	50,587	$ 5,633,737

Operations Branch

Administration	
Branch Administration	$652,914
Silviculture Agreements	331,117
Field Services	
Administration	2,697,166
Forest Protection	2,253,088
Enforcement and Hunter Safety	816,646
Parks Maintenance and Operation	1,324,463
Extension and Training	79,367
Private Land Forest Management	1,261,765
Wildlife Management	635,854
Crown Land Forest Management	3,037,798
Properties, Vehicles & Equipment	1,075,009

Administration—Fire Control	168,806	
Fire Protection	908,837	
Mechanical Equipment	639,562	
Support Services	245,107	
Radio Communications	923,389	$17,050,888
Land Services Branch		
Branch Administration	$ 95,063	
Land Resources	350,351	
Surveys	1,215,921	
Provincial Crown Lands Record Centre	463,396	$ 2,124,731
TOTAL ORDINARY EXPENDITURES		32,644,495
Forest Renewal Agreement[1]	6,097,978	
Forest Resource Development Agreement[1]	3,259,887	$ 9,357,865
Recoveries		
Policy and Program Development		
Education and Information	$ 3,816	
Forestry		
Insect and Pathogens Protection	13,002	
Fire Protection	800	
Radio Communications		
Operations		
Radio Communications	80,192	
TOTAL RECOVERIES		$ 97,810

1. Funds budgeted in the Department of Development.

CAPITAL EXPENDITURES

Furniture and Equipment		
Office	$ 22,486	
Firefighting Equipment	190,534	
Forestry Equipment	538,622	$ 751,642
Other		
Program Planning		
Parks and Recreation		$ 2,637,119
Forest Research	499,759	
Operations		
Operational Silviculture		392,116
Crown Land Access Roads	29,818	
Land Services		
Land Acquisition	492,242	
Surveys	1,521,293	$ 5,572,347
Public Works and Special Projects		
Depot Buildings	$ 32,975	
TOTAL CAPITAL EXPENDITURES		$ 6,356,964
Forest Renewal Agreement[1]	$ 2,737,658	
Forest Resource Development Agreement[1]	7,413,684	
		$10,151,342

Revenue

Admission Fees—Parks	$ 282,061	
Fines and Forfeitures	185,910	
Game and Fish Licenses	2,624,890	
Leases and Grants	56,367	
Nursery—Sale of Trees	1,750,510	
Selective Cutting	36,450	
Timber and Firewood Licenses	2,214,298	
Miscellaneous	159,181	$ 7,309,667

1. Funds budgeted in the Department of Development.

PERSONNEL ADMINISTRATION

The Personnel Administration Division is responsible for personnel and payroll functions.

The number of civil service positions as of March 31, 1988, was 649. During the year, between 150 and 1,500 casual employees were on staff to assist in full time, seasonal, or student internship programs.

This year saw the retirement of Hugh H. Brown, Chief Technician, Timber Loan Board at Truro; Donald M. Levy, Manager of Reforestation at Truro; W.L. "Slim" Johnson, Director of Operations and Forest Management, Private Lands, at Halifax; and Jane N. Schnare, Field Unit Accounting Clerk at Milton.

The Department was saddened by the death in December 1987 of Marion A. Parker, Field Unit Accounting Clerk at Windsor.

AIR SERVICES

The Department maintains four helicopters and three fixed-wing aircraft. Primary functions include medical evacuations, ground search and rescue, forest fire detection and suppression, provincial emergency situations, and resource development and management.

During the year a total of 462.5 hours were flown on fire patrol and fire suppression missions. The Air Service was called on by the Emergency Measures Organization to carry out 42 searches totalling 92.8 hours for missing persons. Twenty-one air ambulance missions totalling 115.7 hours were also performed.

MIS SERVICES

In July 1987 a coordinator of management information systems (MIS) joined the Department. The coordinator guides the growth of computer acquisitions and use and systems development throughout the Department. The initial priorities of the position included preparation of the five-year Departmental Long Range Systems Plan (LRSP), acceleration of the province-wide microcomputer-based Forest Management System, and liaison with the EDP Advisory Committee on computer acquisitions and systems studies and development. By fiscal year-end the LRSP was completed, the Forest Management System development was under way, and equipment purchases and systems development were planned

and approved for 1988-89. Ongoing responsibilities of the position include: monitoring operational systems; equipment acquisition, installation and maintenance; departmental EDP training; updating the LRSP; standardization; and all aspects of departmental computer user support.

POLICY AND PROGRAM DEVELOPMENT BRANCH

The Policy and Program Development Branch is responsible for developing, evaluating, and recommending policy and program alternatives in forest management, wildlife management, and parks and recreation. The branch is also responsible for information and education functions through its Extension Services Division. The task of conducting marketing studies and encouraging forest industry development also falls to this branch.

Policy and Program Development consists of four divisions: Wildlife, Parks and Recreation, Extension Services, and Program Development and Evaluation.

This branch also coordinates, monitors, and evaluates the implementation of the Canada/Nova Scotia Forest Resource Development Agreement. It coordinates the preparation and updating of the Departmental Strategic Plan and represents the Department on the government-wide strategic planning process.

WILDLIFE DIVISION

The Wildlife Division appraises and evaluates the status and population trends of wildlife, assesses habitat quality and needs for various species; and recommends management strategies including seasons and bag limits for game species and furbearers.

Non-Game

Non-game programs concentrated on habitat studies of wildlife species protected by provincial statutes. Studies also assessed bald eagle productivity required for translocation of young eagles to the United States. Other studies dealt with cormorant movements, peregrine falcon releases in co-operation with the CWS, selected seabird nesting population counts, piping plover surveys, and the incidence of rabies in bats.

This section was also involved in editing a forest/wildlife guidelines booklet, administering regulations of the Convention on International Trade in Endangered Species, and participating on the Committee on the Status of Endangered Wildlife in Canada, and the Wildlife Habitats Advisory Committee.

Big Game

Deer

The 96,940 licensed big game hunters took an estimated 50,224 deer during the 1987 big game season. From the big game cards returned, the following kill by county was calculated:

Annapolis	2,831	Kings	2,335
Antigonish	1,212	Lunenburg	4,935
Cape Breton	1,971	Pictou	3,109
Colchester	4,422	Queens	2,518
Cumberland	4,255	Richmond	2,216
Digby	1,804	Shelburne	1,951
Guysborough	2,691	Yarmouth	1,984
Halifax	3,204	Victoria	1,108
Hants	4,213	Unknown	201
Inverness	3,264		

A severe winter in 1986-87 resulted in the predicted spring population indices and the reduced kill noted in 1987.

Black Bear

Total black bear mortality for 1987 (calculated from staff reports, hunter report cards, and trapper surveys) was 747 animals. Of these, 12 were killed by vehicles, one killed illegally, and 16 killed by various non-hunting causes.

Big game hunters reported a hunter success rate of .003, for a calculated harvest of 285 bears. Foot-snaring permit holders reported a calculated harvest of 433 bears.

Moose

The 200 resident applicants, selected by lottery, harvested a total of 164 moose from the highlands of Inverness and Victoria counties. The harvest consisted of 121 bulls, 27 cows, and 16 calves.

Furbearers

The sale of furbearer licenses increased from 3,758 in 1986-87 to 3,888 in 1987-88.

The largest harvest changes included beaver, which was the highest since 1960, and coyotes, which reached a new high at 360 pelts.

The bobcat harvest decreased by almost 50 per cent as a result of the imposition of a one bobcat limit.

Fur prices fell for all important species except muskrat. A summary of harvests and prices can be found in Table 4.

Biological data collected through mandatory carcass returns of fisher showed age ratios and reproduction indices consistent with an overharvested population. As a result, the fisher season is proposed to be closed in 1988-89.

The mandatory fur harvester education program continued with 140 students graduating.

Upland Game and Waterfowl

Small game license sales went from 31,282 in 1986-87 to 27,734 in 1987-88. All species showed a decline in harvest attributable to a decreased effort and slightly reduced populations.

A pheasant cock crowing census in Kings County showed a slight decline in the spring cock population. Poor breeding success resulted in fewer harvestable birds in the fall.

Winter census indices for Hungarian partridge revealed a continuation of depressed populations. As a result, the season on this species was closed in 1987.

Woodcock surveys showed that the average number of singing males heard per comparable survey was 2.3 birds in 1987 as compared with 3.5 in 1986.

A wildlife management plan was prepared for the Aiken Marsh in Hants County. This marsh was purchased and developed under the Nova Scotia/Wildlife Habitat Canada/Ducks Unlimited Canada Agreement. The Daggers Woods Marsh in Antigonish County is being purchased under the same agreement.

Black duck brood production increased in the Halifax County study unit, and warm December temperatures encouraged larger than normal numbers of black ducks and Canada geese to winter over in the province.

The Tobeatic Wildlife Management Area again showed high rates of waterfowl brood use as well as increased numbers of other species. This is a cooperative study with Ducks Unlimited Canada.

During the year 3,955 birds were banded.

Fish Rearing Station

During the spring the fish rearing station at Kelly Lake, Halifax County, stocked 77,000 yearling brook trout and 8,900 yearling rainbow trout in accessible lakes of Colchester, Cumberland, Halifax, Hants, Inverness, Kings, and Victoria counties. This was part of the province's "put and take" yearling trout program but also included some rainbows for the Bras d'Or Lake rainbow fishery.

Kelly Lake was stocked and provided the focus of many angler-use days including 884 successful fisherman days. A creel census was maintained to record catch rates for various strains and stocking schedules.

A small overnight and day-use area accommodated 629 overnight camping units.

A total of 66,625 brook trout and 6,578 rainbow trout were received from the Department of Fisheries for rearing through the winter and spring.

Provincial Wildlife Parks

The Provincial Wildlife Park at Shubenacadie attracted an estimated 320,000 visitors, the majority being Nova Scotia residents. Visitors also came from every Canadian province and many U.S. states as well as from other countries.

The Creighton Forest Environmental Centre underwent improvements, which resulted in increased public interest in the displays.

During the year, 151 wood ducks were reared and released in the province through Ducks Unlimited. Some 544 ring-neck pheasants were

hatched and released through private individuals and wildlife associations.

Satellite parks at Two Rivers, Cape Breton County, and Upper Clements, Annapolis County, attracted over 70,000 visitors each.

PARKS AND RECREATION

The Provincial Parks System is administered by the Parks and Recreation Division and the Operations Branch's subdivisions and district offices. The Parks and Recreation Division is responsible for planning the parks system, park management, public inquiries, construction of some park infrastructure, as well as preparing standards for development and operation. The Operations Branch is responsible for maintenance, operation, policing, and under guidance from Parks Division staff, most capital construction.

The parks provide a variety of outdoor recreational opportunities; preserve natural environments and scenic landscapes; increase public awareness and appreciation of our natural and cultural heritage; and provide amenities for the travelling public.

In 1987, the parks system comprised 110 parks, including 20 campgrounds, 85 day-use parks, and five wildlife/historic parks. An estimated 134,000 persons stayed 45,719 party nights in provincial campgrounds, a 16 per cent increase from the previous year. Visitation to day-use parks is approaching two million people per year.

Major Park Planning Projects

Total divisional expenditures in 1987-88 were $2,637,119, of which $1,128,000 was directed to capital projects.

The Department initiated a review of its parks policy and associated legislation to ensure the parks system could meet Nova Scotia's outdoor recreation and heritage protection needs well into the 21st century.

Public meetings were held throughout the province, and more than 125 submissions containing 900 recommendations were received.

The Department continued preparation of a park management plan for a new park at Sandy Bay, Queens County, in consultation with the local citizens advisory committee.

To create better public awareness of provincial parks a brochure was completed for Tidnish Dock, and work on several others continued. *A Parks Are for People* program to coordinate and promote events occurring in the parks was initiated to encourage greater visitation.

The Parks and Recreation Division continued to represent the province in the Canadian Heritage Rivers Program and undertook a comprehensive inventory of 45 rivers throughout the province.

Capital Development

Major capital development projects were undertaken at the following provincial parks: Lawrencetown, Rainbow Haven, Dollar Lake, Rissers Beach, Blomidon, Salsman, Smugglers Cove, Dominion Beach, and Amherst Shore.

Park Land Acquisition

During 1987-88, properties totalling 865 acres (350 ha) were acquired for park purposes. These properties included 329 acres (133 ha) at Amherst Shore; 503 acres (204 ha) at Dollar Lake; and 20 acres (8 ha) at McNabs Island.

EXTENSION SERVICES DIVISION

The Extension Services Division was created to improve the communication, education, and information efforts of the Department. Existing resources from other divisions, including Forest Resources Education, Silviculture Training, the public information officer, and the Christmas tree specialists were transferred to Extension Services. New personnel were added including a director and four extension specialists. Two program administration officers were hired to conduct educational programs at the new Musquodoboit Valley Forest Nursery and Education Complex.

The division is divided into two subdivisions: Support and Liaison. The two subdivisions work closely to develop extension tools and programs to effectively meet the needs of affinity groups.

Support

Support is the creative arm of the Extension Services Branch and is responsible for planning, producing, and distributing extension tools.

Services offered include publications, advertising, audio-visual production and equipment loans, exhibits, signs, curriculum materials, nature trails, workshops, and talks. This subdivision is also responsible for the administration of the Musquodoboit Valley Forest Nursery and Education Complex.

The Truro audio-visual library supplied films, video tapes, and slides for an estimated 700 showings to a total audience of 50,000. The slide-tape presentation *Treelore* was completed, and a model sawmill was videotaped.

Planning began for a major exhibit at Silvilog '88. Some two dozen county and provincial venues were serviced with a *Trees for Tomorrow* reforestation exhibit, and an exhibit was sent to Newfoundland. Work continued on a woodlot teaching model.

Research on programs and equipment for the educational component of the Musquodoboit Valley Forest Nursery and Education Complex continued, and a proposal was forwarded to the minister.

Advertising consisted of weekend forest fire radio spots in early summer and periodic print ads promoting the Forest Resource Development Agreement.

Support assisted the Nova Scotia Forestry Association with Project Learning Tree, and the Annapolis Valley Affiliated Boards of Trade with their annual forestry exhibition. In cooperation with the Nova Scotia Wildlife Federation, a Project Wild facilitator workshop was held in Truro.

Liaison

Liaison is the delivery arm of Extension and is responsible for facilitating planned extension programs, which may include meetings, workshops, field days, exhibitions, demonstrations, lectures, film presentations, and training courses.

Four two-day workshops on vegetation management with herbicides were held, and 59 foresters, technicians, and silviculture contractors and workers took part.

Three one-day field courses on tree planting were conducted in Cape Breton and the eastern subdivisions. One hundred and five participants were instructed on handling nursery stock, planting methods, use of range poles, quality control, and duties of planting personnel.

Nine Nova Scotia Agricultural College students successfully completed the Farm Woodlot Management course.

Staff coordinated two Level II Silviculture Worker training programs. Forty-six silviculture workers successfully completed the course. In addition, 48 on-site training programs were conducted by Commercial Safety College staff with assistance from Department staff.

A 22-minute video entitled *Clean to Grow—Pre-Commercial Thinning in the Maritimes* was completed as a joint project of Lands and Forests and the New Brunswick Forest Extension Service.

A booklet, *Tree Planting Manual*, was produced to increase awareness and understanding of tree care, handling, and planting.

Staff represented the Department on the Forestry Training Coordinating Committee and the Nova Scotia Forest Products Association's Safety and Training Committee.

FOREST PRODUCTS DEVELOPMENT

Forintek Canada Corporation concluded the last of 12 sawmill productivity studies initiated under the 1984 agreement. Data from the studies were compiled, and many individual sawmill owners requested data on their operations as well as provincial averages. Forintek and division staff conducted follow-up visits during the year.

Several new or rebuilt mills began operations in 1987-88:

Sproule Lumber Ltd.	Sawmill and planer mill
Central West River Wood Products	Sawmill and moulding plant
Wentworth Lumber	Sawmill
E.M. Comeau (1977) Ltd.	Planing mill and dry kiln
Murray Reeves	Sawmill
David Nickerson	Sawmill
Bill DesChamps	Sawmill

Five companies carried out renovations:

Bowater Mersey Paper Co. Ltd.	New carriage
Scott Maritimes Pulp Ltd.	New slasher
Brookfield Lumber Co. Ltd.	New band headrig
Harry Freeman & Son	Planer mill
MacTara Lumber Ltd.	Log slasher

Fires claimed the Murray Reeves sawmill and the Ledwidge Lumber stud sawmill.

Staff participated on the Maritime Forest Ranger School Sawmill Advisory Committee and the Nova Scotia Forest Products Association's Safety Committee.

Urban Forestry

The Department employs a senior forester to assist municipalities in developing urban forestry programs for shade trees. There has been more interest in developing strategies for enhancing the amenities offered by improved tree management. The forester also administers the Dutch Elm Disease Assistance Program.

FORESTRY BRANCH

This branch is responsible for an ongoing forest inventory, forest research, tree breeding, nursery operations, and forest protection. Under the new organizational structure all elements of forest protection were consolidated and placed under one division. The branch is comprised of three divisions: Reforestation and Silviculture, Forest Resources Planning and Mensuration, and Forest Protection.

REFORESTATION AND SILVICULTURE

Nursery Operation

Nursery staff have the responsibility of operating facilities, growing the seedlings required, allocating planting stock equitably, coordinating cone crop surveys and collections, and initiating or monitoring seedling research projects.

Tree distribution by nursery and user agency in 1987 were as follows:

Nursery	Number of Trees Shipped	
Lawrencetown	6,162,252	
Strathlorne	9,986,510	
Wittenburg	2,897,182	
Other	260,221	(Bowater and Scott)
	19,306,165	

User Agency	Number of Trees Planted
Crown	480,434
Large landowner	4,218,429
FRDA	13,941,143
Small private (non-FRDA)	629,550
Other	40,609
	19,310,165

Of the trees planted by large landowners, 3,521,185 were highland spruce (white and black). Of the trees planted on Crown lands and FRDA woodlots, 98,506 were planted by Boy Scout organizations.

In 1987 a poor cone crop was experienced throughout Nova Scotia and no cones were collected. A total of 264 kg of balsam fir, red pine, and black spruce seed was purchased.

Nursery tours were conducted for technical groups, special interest groups, school children, and the general public.

Tree Breeding

The Tree Breeding Section is responsible for coordinating the overall program of the Tree Improvement Working Group and fulfilling the Department's operational commitment to the effort. Operational requirements are shared with Bowater Mersey Paper Company Ltd., Stora Forest Industries, and Scott Worldwide Inc. The Canadian Forestry Service in Fredericton provides technical and strategic advice.

This year saw continued emphasis on orchard expansion with all existing grafted orchards being enlarged. A red spruce orchard was started by the Department at Debert, and Scott Worldwide began a Norway spruce orchard at East Mines. Approximately 220 black spruce families were grown in the greenhouse for establishment in orchards next year.

Because of strong evidence indicating high levels of inbreeding within black spruce in the Cape Breton Highlands, a series of controlled outcrosses were completed. This seed was used to establish two test plantings to determine the effect of inbreeding levels on growth and whether outcrossing can overcome them.

Staff at the Tree Breeding Centre hosted the biennial meeting of the Canadian Tree Improvement Association and conducted tours for educational, professional, and special interest groups.

Entomological Services

The 23 pest detection officers submitted 273 insect and disease samples and received training on plantation assessment. Insects and pathogens causing problems in 1987 were spruce budworm, spruce beetle, spruce budmoths, seedling debarking weevils, hemlock looper, gypsy moth, oak leaf roller, oak leaf shredder, and Dutch elm disease.

Surveys were conducted for spruce budworm, hemlock looper, and gypsy moth. Nine light traps were used to monitor photopositive forest insects.

Aerial Foliage Protection Program

An aerial foliage protection program was undertaken on 50 000 ha using Dipel 132 at 30 BIU ha-1 applied neat at 2.4 L/ha. The mean relative foliage protection for red spruce was 40.8 ± 29.4 and for white spruce was 36.5 ± 19.6. The estimated cost of the program was $1.5 million and the cost per hectare flown was $35.87. An epidemic of *Nosema fumiferana* Thomas reached lethal concentrations over much of the infested area.

Forest Research

Seven trials were established to test methods of improving survival and performance of softwood and hardwood plantations, to determine optimal planting time for container stock, and to monitor survival and performance of stock shipped from provincial nurseries.

A trial was established to assess the effects of various silviculture treatments on the growth and yield of hardwood natural regeneration. Thinning or cleaning at various intensities was done on these natural softwood stands. Two plantations were established at various spacings. Permanent sample plots (PSPs) will be created in each area to measure the long-term response to the various treatments. In addition, 93 existing PSPs were remeasured. This data is essential for continued refinement and updating of the growth and yield model.

Trials were established to develop optimal fertilizer regimes in natural stands of Christmas trees and to assess the performance of various balsam fir and Scots pine stock types planted in old fields. A new plantation will assess the effect of different site preparation methods on the number and performance of balsam fir. Research staff also assessed 35 private balsam fir plantations to determine the effect of various cultural practices on nursery stock.

Four trial drainage sites were remeasured to determine the response of the trees to improved drainage.

Four herbicide trials established in 1987 emphasized: (1) application techniques, (2) safe times of application, and (3) the effectiveness of various herbicides on different types of vegetation. In addition, 2,800 plots established in 29 previous trials were remeasured.

Research results were distributed to the public as well as government and industry through publications, seminars, and field tours.

Studies started in 1986-87 to determine manual productivity in various silviculture treatments were completed.

FOREST RESOURCES PLANNING AND MENSURATION DIVISION

Forest Inventory

Sound forest management requires constantly updated data collected and maintained through a recurring inventory. Such an inventory was commenced in 1964 and is regularly updated. To provide data on forest growth and yield, a province-wide system of 1,765 permanent plots of 0.1 acre (0.04 ha) is also employed. These are measured every five years.

During the spring and summer of 1987, Atlantic Canada Airborne Sensing Inc., under contract, took aerial photographs of Annapolis and Kings counties using true color film.

From April to August a crew of 14 established 1,500 sample plots in over 300 stands in Cumberland and Colchester counties. Data on wildlife habitats were also gathered in conjunction with field work. From August to December, the crew remeasured 250 permanent sample plots. This represents the fourth measurement on these plots for determination of growth and mortality.

Data from the new inventory of Cumberland and Colchester counties were compiled. The results of the Cape Breton inventory were compiled and reports were presented.

There were 15 lots or parcels of land cruised and evaluated for possible trade or purchase by the Crown for a total of 20,155 acres (8 157 ha).

During the fiscal year the photo interpretation section began typing all lands in Cumberland County for entry into the Geographic Information System (G.I.S.).

The Management Section acquired the ESRI ARC/INFO Geographic Information System in August 1987. Data in the form of maps, photographs, and descriptive data were prepared for entry. Digitizing of the five basic layers, which form the new forest cover maps, began in February 1988. Programming was started to develop menus and algorithms for the entry of the five layers, their overlay for report production, and data analysis.

Programming also began for the production of a cadastral (ownership map) for the Survey Division, and a potential forest treatment map. A base map showing roads and powerlines, rivers, streams, lakes, and non-forested areas was prepared.

The Remote Sensing group continued to develop expertise with satellite imagery. Landsat Thematic mapper imagery has been acquired for the entire province at varying scales.

The use of radar imagery for forestry was investigated. A major experiment with radar was conducted in conjunction with the Canada Centre for Remote Sensing. A report will be written in 1989.

The Engineering Section approved two gravel crushing contracts and one half-mile road building contract for Crown land. Two gravelling contracts and two sewer contracts were undertaken for Parks Division.

Twenty-two hydrology reports were done for Crown and private lands. A road and stream crossing construction course was put on in each subdivision in conjunction with the Department of Environment and the federal Department of Fisheries and Oceans.

Timber Loan Board

In the fiscal year four applications totalling 902 acres (365 ha) were appraised. Three applications were approved for a total of 737 acres (298 ha) and $136,000 in loans. Annual inspections, investigations, and other required reports were coordinated on 45 to 50 active loans.

Scaling

The check scaling policy program carried out on Crown Timber Licenses was monitored and assistance given as required.

The check scale program at Scott Maritimes Pulp Ltd. was stopped because of the change from 2.44-m wood to tree length. This system will be studied and a type of check scale established, if required.

Scaling regulations and a scaling manual were produced in an effort to standardize scaling procedures.

The annual Scalers School attracted 27 candidates. The pass rate was 85 per cent.

The Board of Examiners granted a request from the Cumberland Regional Vocational School to hold a public scalers school. The C.R.V.S. and the Cape Breton Adult Vocational Training Centre were also granted permission to have their forestry students write the Provincial Scalers Examination. A total of 19 students wrote the exam with a success rate of 74 per cent.

Nineteen people attended the new mandatory scaling refresher course.

FOREST PROTECTION DIVISION

The Provincial Forest Fire Control Centre (P.O. Box 130, Shubenacadie, N.S. B0N 2H0, Tel. 758-2232) is responsible for the acquisition, distribution, and maintenance of fire control equipment, the motor vehicle fleet, and heavy equipment. The Fire Control Centre is also responsible for the operation and maintenance of the Integrated Mobile Radio System, which services user departments and agencies of the government, hospitals, ambulances, fire departments, and the RCMP.

New fire regulations were prepared and came into effect on April 1, 1987. A dry period in the early spring resulted in two fires occurring in March. A dry summer and fall resulted in 590 fires, which burned 1,383.3 acres (560 ha). Eighteen fires were caused by lightning, with the rest being caused by people.

On July 18 dry conditions and high fire hazards warranted a proclamation prohibiting the setting of fires in the woods; a further proclamation, on August 21, restricted travel in the woods. The proclamations remained in effect until September 15. The fire load was sustained and persistent throughout the summer and fall because of lower than normal precipitation levels.

The aircraft utilized in forest fire management were a Cessna 185 Sky Wagon, a Beaver on floats, four Hughes 500s, and a Bell 212 helicopter with helitack crew. All rotary-wing aircraft are equipped with "Bambi Buckets" and were used as water bombers. The Bell 212 and helitack crew were used on 25 fires. Helicopters were used on 74 fires and fixed-wing aircraft on 40 fires.

New equipment acquired included 10 hand-held radios, a 49-unit sprinkler system, and a hydraulic pump for fire trucks. An electronic automatic weather station was tested at the fire centre.

The fire training program included courses on fire weather index, investigation, pump maintenance, helicopter safety, and basic fire behavior and suppression. Audio-visual and other training aids were provided to the districts for local fire training as well as to Parks Canada, Prince Edward Island, and the annual meeting of the Canadian Committee on Forest Fire Management held in Halifax.

Fire prevention activities included print and electronic media advertising, displays, and water bombing demonstrations at exhibitions and fairs. Fire prevention was promoted with tours of the fire centre and presentations to youth and adult groups.

OPERATIONS BRANCH

The Operations Branch is responsible for a wide and diverse range of duties including operation of district and subdivision offices, provision of staff and equipment for forest fire protection, enforcement of Acts that pertain to hunting and provision of hunter safety education, operation of provincial parks, provision of technical services for increased forest production on Crown and privately owned lands, implementation of wildlife programs, and the maintenance of the Department's buildings, facilities and vehicles.

The branch is comprised of four divisions: Operations and Forest Management Private Lands, Forest Management Crown Lands, Enforcement and Hunter Safety, and Forest Resources.

The province is divided into eight roughly equal geographical subdivisions, each staffed with a resource manager, a Crown lands forester, a private lands forester, and, in most cases, a biologist. Within the subdivisions are districts headed by supervisors and staffed by forest technicians, field clerks, maintenance personnel, and forestry crews.

Operations Field Offices

WESTERN
(Yarmouth, Digby, and Shelburne counties)

10 Starr's Road
Yarmouth, N.S.
B5A 2T1
(742-7846)

P.O. Box 369
Shelburne, N.S.
B0T 1W0
(875-2501)

P.O. Box 367
Digby, N.S.
B0V 1A0
(245-2164)

Kemptville Depot
Kemptville, N.S.
B0W 1Y0
(761-2227)

SOUTH SHORE
(Queens and Lunenburg counties)

99 High Street
Provincial Building
Bridgewater, N.S.
B4V 1V8
(543-8167)

McGowan Lake Depot
Caledonia, N.S.
(242-2550)

P.O. Box 190
Milton, N.S.
B0T 1P0
(354-3462)

Chester Grant Depot
Chester, N.S.
(275-3574)

VALLEY
(Annapolis and Kings counties)

120 Exhibition Street
Provincial Building
Kentville, N.S.
B4N 4E5
(678-8907)

SOUTH CENTRAL
(Halifax and Hants counties)

Box 23, Site 2
R.R.# 1, Waverley, N.S.
B0N 2S0
(861-2560)

Middle Musquodoboit, N.S.
B0N 1X0
(384-2290)

Stanley Hangar
R.R.# 1, Scotch Village, N.S.
B0N 2G0
(632-2410)

Lewis Lake Depot
R.R. # 3, Armdale, N.S.
B3L 4J3
(876-2308)

Wiles Lake Depot
Bridgewater, N.S.
(543-2394)

P.O. Box 130
Lawrencetown, N.S.
B0S 1M0
(584-2229)

Musquodoboit Harbour, N.S.
B0J 2L0
(889-2332)

P.O. Box 130
Shubenacadie, N.S.
(758-3437)

P.O. Box 190
Windsor, N.S.
B0N 2T0
(798-2016)

NORTH CENTRAL
(Cumberland and Colchester counties)

626 College Road
Bible Hill, N.S.
B2N 2R2
(895-6325)

P.O. Box 130
Oxford, N.S.
B0M 1P0
(447-2115)

P.O. Box 428
Parrsboro, N.S.
B0M 1S0
(254-3241)

EASTERN
(Pictou, Guysborough, and Antigonish counties)

11 James Street
Provincial Building
Antigonish, N.S.
B2G 1R6
(863-4513)

P.O. Box 50
Guysborough, N.S.
B0H 1N0
(533-3503)

R.R.# 2, Aspen
Guysborough Co., N.S.
B0H 1E0
(522-2024)

Pictou County District Office
P.O. Box 457, New Glasgow, N.S.
B2H 5E5
(752-3181)

Antigonish Depot
(863-1502)

MacLellan's Brook Depot
(752-5247)

North Riverside Depot
Guysborough, N.S.
(533-3333)

CAPE BRETON NORTH
(Inverness and Victoria counties)

P.O. Box 68
Baddeck, N.S.
B0E 2H0
(295-2554)

P.O. Box 130
Whycocomagh, N.S.
B0E 3M0
(756-2339)

CAPE BRETON SOUTH
(Richmond and Cape Breton counties)

Coxheath Depot
R.R.# 6, Sydney, N.S.
B1P 6T2
(564-6389)

Provincial Building
St. Peters, N.S.
B0E 3B0
(535-2032)

PRIVATE LAND FOREST MANAGEMENT

Individual Assistance

The Forest Resource Development Agreement (FRDA) began April 1, 1982, for a five-year period. It was extended for a two-year period starting April 1, 1987. The Forest Resource Enhancement on Private Lands Program was implemented and funded by Canada while the Province supplied staff to prescribe and monitor forest management activities implemented by Canada on private lands.

The objectives of this agreement are:

(a) To encourage and support forest management that will increase the sustainable supply of softwoods to an average of 3.3 million m^3 (910,455 cords) annually and help ensure the continued viability and competitiveness of the present wood-based industry;
(b) To improve and increase the utilization of the forest to enhance future forest industry development opportunities.

The Forest Renewal Agreement, designed to support the expansion of intensive forest management, ran for a three-year period commencing April 1, 1984. It was jointly funded by Canada and the Province, with the Province providing staff, facilities, and field equipment to prescribe, monitor, and inspect forest management activities conducted under Program 1.

The Forest Renewal Agreement was amended on March 26, 1986, to create the Cape Breton Initiative (Program 6). This project was jointly funded and implemented by the Province to increase intensive forest management as well as to create employment and provide incentives for utilizing woodchips as fuel. This fiscal year was the run-out period of the Cape Breton Initiative.

The Forest Renewal Agreement was again amended in March 1987 to extend the expiry date to September 30, 1987.

At the end of the 1986-87 fiscal year 704 applications for small private forest management plans were on file. Forestry consultants and Department staff prepared 418 plans during the 1987-88 fiscal year to bring the total number of plans to 4,259 and place 807,416 acres (326 641 ha) under management. These numbers do not include Group Ventures.

Group Forest Management

Group Venture Forest Management continued to grow with the signing of a new group, the Antigonish Forest Owners Limited. Pictou Forest Owners Limited, North Inverness Forest Management Limited, and Celtic Isle Forestry Limited expanded their service areas. There are now 18 group companies and cooperatives in operation.

As of March 31, 1988, the 18 groups had 1,728 shareholders with 242,858 acres (98 284 ha) of land under management. The average ownership per shareholder is 141 acres (57 ha). The value of activities by these groups was approximately $9,280,000. The activity level of 1987-88 surpasses that of 1986-87 by $1.0 million.

Operating and Administration

The groups claimed $1,610,272 for operating. Each group, under the direction of an elected board of directors, is responsible for preparing management plans, implementing operating plans, and selling forest products. The shareholders paid a management fee of five per cent on all wood sales (roadside price), which was credited to the group's operating costs. During 1987-88 this fee totalled $179,192. This year 28,532 acres (11 547 ha) were brought under group management.

Forest Improvement Activities

The groups claimed $4,088,959 from Forestry Canada under the FRDA for the following work:

Roads (miles)	220	(354 km)
Bridges and culverts (feet)	357	(109 m)
Ponds (number)	75	
Boundaries (miles)	200	(322 km)
Silviculture (acres)	13,726	(5 555 ha)

CROWN LAND FOREST MANAGEMENT

Pulp and Paper Companies

Stora Forest Industries Ltd., Port Hawkesbury

The 50-year license and management agreement with Stora Forest Industries Ltd. covers 1,379,513 acres (558 270 ha) of Crown land with additional acres being added yearly until a total of 1,500,000 acres (607 042 ha) is reached. The agreement allows an average annual harvest of 330,000 cords (1 196 105 m^3 (stacked)) on a sustained yield basis.

Under the FRDA, funding was available for silviculture treatments on Crown lands. Under the company's license agreement, the Province gave the company a stumpage rebate for silviculture work done by the company.

Stora submits harvesting and silviculture proposals (in the form of an annual forest management plan) to the Department for approval. Department staff make field inspections before approvals are given as well as during and following the operations on approved jobs.

Scott Worldwide Inc., Abercrombie Point

This 50-year license and management agreement gives the company the right to cut stumpage on 203,000 acres (82 153 ha) of Crown land for 50 years commencing in 1966. It provides for the annual allowable harvest of 50,000 cords (181 228 m^3 (stacked)) on a sustained yield basis.

Scott submits harvesting and forest improvement proposals (in the form of a five-year management plan) to the Department for prior approval. The plan must follow agreed-upon guidelines for operations, products to be extracted, and road construction. Annual cutting and silviculture plans identify specific locations of various operations. Department staff make field inspections before approvals are given.

Other Wood-Processing Facilities

The Department has stumpage agreements with several lumber companies and one hardboard manufacturer granting the right to cut specific volumes of wood on designated Crown lands.

Unlicensed Crown Lands

Most of the unlicensed Crown lands are situated in the central and western parts of the province. The larger units or blocks have been placed under management plans drawn up in consultation with the Forestry Resources Planning Division.

Under the Forest Resource Development Agreement, forest improvement activities were carried out on these lands. Under this agreement, silviculture access roads were constructed while some older roads, used for access to silviculture treatment areas, received general maintenance.

Forest Product Sales

Letters of authority and standing permits were issued to many citizens requesting fuelwood.

During the calendar year 5,116 cords (18 545 m^3 (stacked)) of fuelwood were cut from unlicensed Crown lands. An additional 10, 569 cords (38 309 m^3 (stacked)) were cut from Crown lands under license to forest industries.

Timber Licenses

Twenty-two timber licenses, granting short-term cutting rights on parcels of Crown land ready to be harvested, were issued to successful tenderers following advertisement.

Sales by Tender (Roadside)

During the year three parcels of sawlogs, pulpwood, fuelwood, and studwood were sold by letter of authority to the highest bidder following advertisement.

General Letters of Authority

A total of 958 letters of authority were issued for the cutting and removal of forest products for personal use, aggregate material, quarried rock, Christmas wreath material, construction of access roads, and other short-term uses of Crown land.

ENFORCEMENT AND HUNTER SAFETY

Hunter Safety Education

Thirty-four additional instructors were trained in Hunter Safety Education. Some 259 courses were conducted in the province (see Table 13).

Law Enforcement

About 110 full-time Operations employees were involved in enforcing the Forests Act; the Forest Enhancement Act; the Parks Act; the Beaches Preservation and Protection Act; and the regulations pursuant to these acts.

Parts I and II of the Lands and Forests Act were replaced with new legislation: the Wildlife Act and the Crown Lands Act. The Snow Vehicles Act was replaced with the Off-Highways Vehicle Act.

LAND SERVICES BRANCH

The Land Services Branch consists of the Surveys Division, the Land Resources Division, and the Provincial Crown Lands Record Centre.

The Surveys Division surveys, monuments, and maps the Crown lands administered by the Department and maintains surveyed Crown land boundaries. In addition, it surveys land for purchase or expropriation; for environmental, recreational, or cultural purposes; and for other government departments or agencies. The division is also responsible for the investigation and settlement of claims to ungranted land.

The Land Resources Division is responsible for the acquisition and disposal of Crown lands administered by the Department. It prepares all legal documentation related to temporary and permanent land transfers.

The Provincial Crown Lands Record Centre coordinates provincial landholdings information for all government departments and agencies including information for all Crown land records dating back to 1731.

SURVEYS DIVISION

There were 138 miles (222 km) of Crown boundary surveyed requiring the placement of 671 survey monuments. The total area of Crown land surveyed was 13,094 acres (5 299 ha).

There were also 34 miles (55 km) of other boundary surveyed requiring the placement of 228 monuments for various additional projects. This work constituted a total of 1,022 acres (414 ha).

During the period, 506 miles (814 km) of Crown boundary were maintained, requiring the replacement of 1,147 survey monuments.

Claims and Research Section

Pursuant to the provisions of the Crown Lands Act, the Claims Committee dealt with claims of 148 parcels of ungranted land. Approximately 120 were recommended for release and the remainder were considered Crown. Eighty-one certificates, including plan and description, were prepared by the Crown asserting no interest or claim to 15,945 acres (6 453 ha) of ungranted land.

Documentation and mapping was prepared for the turnover of 37,208 acres (15 057 ha) of Crown land to Stora Forest Industries Ltd. pursuant to the provisions of the Nova Scotia Pulp Limited Agreement Act.

There were 125 Orders of Survey issued during the year to Department and private surveyors.

Approximately 300 toponymy and nomenclature inquiries were received. Some 200 were clarified and answered by telephone, while others required research, written replies, or investigative field work.

Plan Examination Section

The Plan Examination Section is responsible for the inspection and final approval of survey projects carried out by the survey field staff.

The following statistics indicate the number of plans compiled, inspected, and finalized during the 1987-88 fiscal year:

Returns of survey inspected	150
Condominium plans inspected	29
Grant plans prepared	4
Descriptions written	15
Plans prepared under Crown Lands Act, Sec. 37	60
Compiled plans prepared (parks, beaches, etc.)	10

Mapping Section

The following drafting assignments were undertaken by the Mapping Section during the fiscal year.

Large-scale drafting of park areas (1:1,000-1:4,800)	70 sheets
Location of woodlot owner maps (1:5,000)	24 sheets
Section 37 grant plans	24 plans
Orthophoto plotting data compilation (1:10,000)	145 sheets
Updating orthophotos	162 sheets
Revisions to Crown land mapping	650
Transfer data to G.I.S. (1:10,000 prep. sheet)	286

Eighteen photogrammetry models were compiled for Parks Division and others. Line kilometres of photos flown were 3 780 line km at 1:10,000 with 16.3 line km for mapping control.

There were 264 reproduction darkroom work orders requiring the preparation of 864 pieces of material.

The Air Photo Library handled 1,400 photo requests.

The Provincial Map Library processed 5,346 requests for maps and produced 29,481 maps for a generated revenue of $45,800.

LAND RESOURCES DIVISION

During the fiscal year, 15 parcels of Crown land were transferred to other provincial departments and to the federal government. Ten grants were issued involving approximately 21.17 acres (8.57 ha). Five deeds were issued involving approximately 167 acres (67.58 ha).

Seventy-three letters of authority were prepared for mineral exploration, construction purposes, inland water course activities, and a variety of domestic purposes.

One area was designated under the Beaches Preservation and Protection Act, and one area was proclaimed under the Provincial Parks Act.

Eighteen Certificates of Title were issued under the Land Titles Clarification Act.

Thirty-four tenders were called during the fiscal year, including 19 parcels for stumpage, three parcels for roadside sales, and four parcels for Christmas trees. Eight special tenders were called on land used for Christmas tree licenses, bridge removal, access road gravelling, site preparation, Crown land, sugar bush, or peat bog development.

Twenty-two timber licenses were issued for cutting Crown land stumpage. Fifty-nine leases involving approximately 2,481.8 acres (1 004.4 ha) of land were issued, including 47 campsite leases and 12 special leases. Sixteen trespasses on Crown land were reported. One permit was issued for fisherman's reserves.

PROVINCIAL CROWN LANDS RECORD CENTRE

Pertinent information and documents relating to land holdings of 19 government departments and agencies were received by the centre. Title, legal, and statistical information relating to 30,212 parcels of land

was processed, and the location and land use of properties have been plotted on resource series and Crown land forestry series maps.

During the year, records of transactions totalling 19,287 images were microfilmed. Documents received from the Registries of Deeds for land acquisition by all departments totalled 1,155.

Conversion of the mapping base to the Resource Series maps was completed for Cape Breton County.

Approximately 2,400 requests were received. Some 1,300 of the requests required searching vault information, and 1,100 required a written reply along with copies of the grant information.

Ninety Quieting of Title files were processed for the Department of Attorney General.

The centre recorded and posted the following documents: 14 rejected petitions; 79 Section 37 certificates; 37 C-files; 40 D-files; 57 leases; four quieting of titles; 38 land purchases; eight grants; 276 plot plans; and one expropriation. Two hundred and fourteen petition numbers were issued.

TABLES

Table 1. Timber Products in Nova Scotia (Calendar Years 1986 and 1987)
Table 2. Provincial Crown Land Forest Production, Calendar Year 1987 (Common Units of Measure)
Table 3. Provincial Crown Land Forest Production, Calendar Year 1987 (Cubic Feet and Cubic Metres Solid Wood)
Table 4. Nova Scotia Wild Fur Harvests and Value to Trapper (3 Years)
Table 5. Calculated Kill for Upland Game Harvested Before December 16, 1983–84 to 1987–88
Table 6. Lands Reconveyed to the Crown, by County, 1987-88
Table 7. Lands Reconveyed to the Crown, by Purpose, 1987-88
Table 8. Forest Management Plans for Small Individual Woodlots, by Subdivision, 1987-88
Table 9. Forest Management Activities on Private Land (Individuals), 1987-88, FRDA
Table 10. Forest Management Activities on Private Land (Individuals), 1987-88, FRA
Table 11. Group Forest Management on Private Lands, 1987-88, FRDA
Table 12. Classification of Fires by Month of Occurrence, 1987
Table 13. Hunting and Non-hunting Accidents and Related Statistics, 1987
Table 14. Provincial Crown Land Forest Production Stumpage Agreements with Other Wood-Processing Facilities, 1987
Table 15. Offences and Convictions, by Statute and Subdivision, 1987

TABLE 1
TIMBER PRODUCTS IN NOVA SCOTIA
(Calendar Years 1986 and 1987)

Product	Unit	1986	1987	Increase	Decrease
Lumber, softwood	mfbm	198,680	203,385	4,705	—
Lumber, hardwood	mfbm	7,221	6,558	—	663
Pulpwood	cord	1,154,929	1,308,821	153,892	—
Pulp chips, residue		N/A	N/A	—	—
Railway ties	mfbm	2,275	250	—	2,025
Mine packs	mfbm	2,951	1,571	—	1,380
Pit props & poles & piling	cord	8,532	283	—	8,249
Laths	x 10^3 pieces	5,892	6,216	324	—
Shingles	squares	752	429	—	323
Staves & headings	mfbm	97	98	1	—
Boxwood	mfbm	1,952	1,676	—	276

TABLE 2
PROVINCIAL CROWN LAND FOREST PRODUCTION
Calendar Year 1987
(Common Units of Measure)

County	SAWLOGS[a] Softwood mfbm	SAWLOGS[a] Hardwood mfbm	PULPWOOD Softwood cords	PULPWOOD Softwood m³(stacked)[c]	PULPWOOD Hardwood cords	PULPWOOD Hardwood m³(stacked)[c]	FUELWOOD Softwood cords	FUELWOOD Softwood m³(stacked)[c]	FUELWOOD Hardwood cords	FUELWOOD Hardwood m³(stacked)[c]	OTHER PRODUCTS[b] Softwood cords	OTHER PRODUCTS[b] Softwood m³(stacked)[c]	OTHER PRODUCTS[b] Hardwoods cords	OTHER PRODUCTS[b] Hardwoods m³(stacked)[c]	WHOLE TREE CHIPS cords	WHOLE TREE CHIPS tonnes
Pictou	229	0	34 812	126 180	3 382	12 257	0	0	716	2 597	0	0	0	0	6 890	3 807
Antigonish	0	0	5 701	20 665	1 217	4 411	0	0	61	223	0	0	0	0	5 899	3 259
Guysborough	409	0	57 275	207 596	6 069	21 999	59	215	663	2 401	0	0	0	0	10 531	5 818
Colchester	2 788	66	5 482	19 869	2 661	9 645	63	227	2 033	7 368	0	0	0	0	0	0
Cumberland	1 154	0	1 739	6 302	0	0	134	485	1 943	7 042	254	575	0	0	0	0
Hants	577	100	634	2 298	155	561	3	11	97	352	0	0	0	0	0	0
Halifax	2 445	21	25 338	91 838	4 857	17 603	27	98	1 889	6 846	0	0	0	0	0	0
Annapolis	461	0	1 596	5 784	1 062	3 850	14	49	838	3 038	0	0	0	0	0	0
Kings	105	20	935	3 388	2 953	10 704	104	377	244	884	0	0	0	0	0	0
Queens	2 138	39	1 108	4 015	2 454	8 894	2	7	404	1 464	0	0	0	0	0	0
Lunenburg	216	3	1 327	4 810	2 038	7 388	23	84	1 090	3 950	83	188	0	0	0	0
Digby	174	41	691	2 504	0	0	11	41	284	1 028	599	1 357	0	0	2	4
Yarmouth	43	0	0	0	0	0	5	17	94	342	53	120	0	0	0	0
Shelburne	337	1	0	0	17	61	8	30	84	305	21	47	0	0	0	0
Inverness	7	343	24 370	88 329	9 253	33 539	5	19	546	1 980	0	0	0	0	20 094	11 102
Victoria	0	136	12 221	44 295	3 321	12 039	8	30	215	779	0	0	0	0	0	0
Cape Breton	3	30	653	2 369	1 189	4 310	31	111	532	1 927	0	0	0	0	45 223	24 985
Richmond	0	0	168	608	0	0	24	88	294	1 067	0	0	0	0	0	0
Total[d]	11 086	798	174 049	630 848	40 629	147 262	521	1 888	12 028	43 595	1 010	2 287	0	0	88 644	48 975

[a] Sawlogs include all products to be sawn

[b] Products not elsewhere specified converted to m³ solid wood

[c] m³ (stacked) based on 8-ft (2 44-m) bolts

[d] Totals may not add up because of rounding

TABLE 3
PROVINCIAL CROWN LAND FOREST PRODUCTION
Calendar Year 1987
(Cubic Feet and Cubic Metres Solid Wood)

	SAWLOGS[a]				PULPWOOD				FUELWOOD			
	Softwood		Hardwood		Softwood		Hardwood		Softwood		Hardwood	
County	cu. ft.	m³[d]	cu.ft.	m³[d]	cu.ft.	m³[d]	cu.ft.	m³[d]	cu.ft.	m³[d]	cu.ft.	m³[d]
Pictou	45.732	1 295	0	0	2,784,988	78 862	270,511	7 660	0	0	52,266	1 480
Antigonish	0	0	0	0	456,089	12 915	97,363	2 757	0	0	4,485	127
Guysborough	81,577	2 310	0	0	4,582,012	129 748	485,542	13 749	4,344	123	48,346	1 369
Colchester	556,242	15 751	13,172	373	438,538	12 418	212,877	6 028	4,555	129	148,322	4 200
Cumberland	230,358	6 523	0	0	139,104	3 939	0	0	9,747	276	141,753	4 014
Hants	115,055	3 258	19,952	565	50,712	1 436	12,395	351	212	6	7,063	200
Halifax	487,766	13 812	4,167	118	2,027,028	57 399	388,532	11 002	1 978	56	137,798	3 902
Annapolis	91,888	2 602	0	0	127,663	3 615	84,967	2 406	989	28	61,165	1 732
Kings	21,012	595	3,919	111	74,761	2 117	236,255	6 690	7,593	215	17,799	504
Queens	426,672	12 082	7,804	221	88,640	2 510	196,279	5 558	141	4	29,452	834
Lunenburg	43,154	1 222	529	15	106,156	3 006	163,083	4 618	1,695	48	79,528	2 252
Digby	34,679	982	8,122	230	55,268	1 565	0	0	812	23	20,694	586
Yarmouth	8,546	242	0	0	0	0	0	0	353	10	6,886	195
Shelburne	67,274	1 905	212	6	0	0	1,342	38	600	17	6,144	174
Inverness	1,377	39	68,369	1 936	1,949,583	55 206	740,267	20 962	388	11	39,870	1 129
Victoria	0	0	27,157	769	977,652	27 684	265,708	7 524	600	17	15,680	444
Cape Breton	565	16	5,897	167	52,266	1 480	95,138	2 694	2,225	63	38,776	1 098
Richmond	0	0	0	0	13,419	380	0	0	1,766	50	21,471	608
TOTAL[e]	2,211,865	62,633	159,269	4 510	13,923,879	394 280	3,250,260,	92,039	37,999	1,076	877,498	24,849

[a] Sawlogs include all products to be sawn.
[b] Products not elsewhere specified converted to m3 solid wood
[c] Whole tree chips are all species and all DBH
[d] m³ based on 8 ft. (2.44 m) bolts.
[e] Totals may not add up due to rounding.

TABLE 3—Continued

County	OTHER PRODUCTS[b] Softwood cu.ft.	Softwood m^3[d]	Hardwood cu.ft.	Hardwood m^3[d]	WHOLE TREE CHIPS[c] cu.ft.	WHOLE TREE CHIPS[c] m^3[d]	TOTAL (Does not include whole tree chips) Softwood cu.ft.	Softwood m^3[d]	Hardwood cu.ft.	Hardwood m^3[d]
Pictou	0	0	0	0	1,411,246	39 962	2,830,720	80 157	322,776	9 140
Antigonish	0	0	0	0	1,208,257	34 214	456,089	12 915	101,847	2 884
Guysborough	0	0	0	0	2,157,022	61 080	4,667,932	132 181	533,888	15 118
Colchester	0	0	0	0	0	0	999,335	28 298	374,371	10 601
Cumberland	19,812	561	0	0	0	0	399,020	11 299	141,753	4 014
Hants	0	0	0	0	0	0	165,979	4 700	39,411	1 116
Halifax	0	0	0	0	0	0	2,516,773	71 267	530,497	15 022
Annapolis	0	0	0	0	0	0	220,540	6 245	146,132	4 138
Kings	0	0	0	0	0	0	103,366	2 927	257,974	7 305
Queens	0	0	0	0	0	0	515,453	14 596	233,536	6 613
Lunenburg	6,498	184	0	0	0	0	157,503	4 460	243,142	6 885
Digby	46,651	1 321	0	0	1,448	41	137,409	3 891	28,816	816
Yarmouth	4,132	117	0	0	0	0	13,031	369	6,886	195
Shelburne	1,624	46	0	0	0	0	69,449	1 968	7,698	218
Inverness	0	0	0	0	4,115,752	116 545	1,951,349	55 256	848,506	24 027
Victoria	0	0	0	0	0	0	978,252	27 701	308,544	8 737
Cape Breton	0	0	0	0	9,262,799	262 293	55,056	1 559	139,811	3 959
Richmond	0	0	0	0	0	0	15,185	430	21,471	608
TOTAL	78,727	2 230	0	0	18,156,524	514,141	16,252,441	460 219	4,287,059	121 398

[a] Sawlogs include all products to be sawn
[b] Products not elsewhere specified converted to m^3 solid wood
[c] Whole tree chips are all species and all DBH
[d] m^3 based on 8 ft. (2.44 m) bolts
[e] Totals may not add up due to rounding

TABLE 4
NOVA SCOTIA WILD FUR HARVESTS AND VALUE TO TRAPPER (3 YEARS)

	1985-86			1986-87			1987-88		
	Number Taken	Average Price	Total Value	Number Taken	Average Price	Total Value	Number Taken	Average Price	Total Value
Beaver	3,864	$35.82	$138,408.48	4,320	$44.32	$191,462.40	6,708	$29.27	$196,343.16
Muskrat	37,976	$3.92	$148,865.92	36,757	$5.18	$190,401.26	37,767	$5.23	$197,521.41
Otter	516	$46.93	$24,215.88	457	$51.76	$23,654.32	507	$37.88	$19,205.16
Mink	2,740	$25.59	$70,116.60	3,059	$41.62	$127,315 58	3,152	$35.41	$111,612.32
Bobcat	1,152	$118.80	$136,857.60	1,061	$187.24	$198,661.64	574	$116.44	$66,836.56
Fox	2,581	$35.90	$92,657.90	2,220	$41.29	$91,663.80	1,687	$31.11	$52,482.57
Raccoon	8,404	$22.35	$187,829.40	10,653	$18.33	$195,269.49	8,671	$12.47	$108,127.37
Skunk	41	$1.35	$55.35	37	$1.56	$57.72	23	$2.24	$51.52
Squirrel	5,192	$0.42	$2,180.64	1,656	$0.63	$1,043.28	1,267	$0.56	$709.52
Weasel	1,010	$2.57	$2,595.70	1,077	$1.49	$1,604.73	682	$1.34	$913.88
Fisher	38	$126.49	$4,806.62	40	$174.90	$6,996.00	37	$102.24	$3,782.88
Coyote	272	$33.30	$9,057.60	271	$34.38	$9,316.98	360	$17.08	$6,148.80
Total			$817,647.69			$1,037,447.20			$763,735.15

TABLE 5
CALCULATED KILL FOR UPLAND GAME HARVESTED BEFORE DECEMBER 16, 1983–84 to 1987–88

	1983-84	1984-85	1985-86	1986-87	1987-88
Ruffed grouse	85,935	97,438	132,423	90,765	78,736
Ring-neck pheasant	14,171	16,335	12,669	16,324	9,712
Snowshoe hare	229,206	220,539	206,636	173,857	134,042

TABLE 6
LANDS RECONVEYED TO THE CROWN, BY COUNTY 1987-88
(34 reconveyances)

County	Acres	Ha
Annapolis	0	0
Antigonish	517	209
Cape Breton	140	57
Colchester	0	0
Cumberland	173	70
Digby	0	0
Guysborough	190	77
Halifax	163	66
Hants	0	0
Inverness	271	110
Kings	0	0
Lunenburg	0	0
Pictou	17	7
Queens	12	5
Richmond	2	1
Shelburne	15	6
Victoria	0	0
Yarmouth	130	53
TOTAL	1,630	661

TABLE 7
LANDS RECOVERED TO THE CROWN, BY PURPOSE, 1987-88

Purpose	Acres	Ha
Timber reserve	1090	441
Recreation & park reserve	227	92
Right of way	6	2
Nursery	1	0.4
Ducks Unlimited	306	124
TOTAL	1630	659
Expropriation	23	9
Transfer of administration and control	1	0.4

TABLE 8
FOREST MANAGEMENT PLANS FOR SMALL INDIVIDUAL WOODLOTS, BY SUBDIVISION
1987-88

Subdivision	No. Plans Completed and Signed	Area Managed Completed and Signed	
		acres	ha
Eastern	65	9,593	3 882
North Central	36	7,724	3 126
South Central	50	8,332	3 372
Valley	38	7,038	2 848
South Shore	34	5,770	2 335
Western	28	4,861	1 967
Cape Breton North	59	9,390	3 800
Cape Breton South	108	14,888	6 025
TOTAL	418	67,596	27 355

Group Ventures not included

TABLE 9
FOREST MANAGEMENT ACTIVITIES ON PRIVATE LAND (INDIVIDUALS), 1987-88
(Forest Resource Development Agreement)

Category	Individuals		Large Landowners		Pulp and Paper Co.		Total	
	Unit	Assistance ($)	Unit	Assistance ($)	Unit	Assistance ($)	Unit	Assistance ($)
Management plans	418	534,513		4,712	N/A	N/A	418	539,225
Access roads (built and under construction)	145 miles (233 km)	476,041	N/A	N/A	N/A	N/A	145 miles (233 km)	476,041
Bridges (including culverts)	354 feet (108 m)	50,284	N/A	N/A	N/A	N/A	354 feet (108 m)	50,284
Boundaries	300 miles (483 km)	146,352	N/A	N/A	N/A	N/A	300 miles (482 km)	146,352
Fire ponds	109	24,525	N/A	N/A	N/A	N/A	109	24,525
Silviculture	689 ac (279 ha)	56,676	6,422 ac (2 599 ha)	838,962	28,138 ac (11 387 ha)	929,192	35,250 ac (14 265 ha)	1,824,830
TOTAL		1,288,391		843,674		929,192		3,061,257

Group Ventures not included.

TABLE 10
FOREST MANAGEMENT ACTIVITIES ON PRIVATE LAND (INDIVIDUALS), 1987-88
(Forest Renewal Agreement)

	Individuals		Pulp and Paper Companies		Total	
	Unit	Assistance ($)	Unit	Assistance ($)	Unit	Assistance ($)
FRA Program 1.1						
Access roads (built and under construction)	11 miles (17 km)	64,014	N/A	N/A	11 miles (17 km)	64,014
Trails (built and under construction)	25 miles (40 km)	20,533	N/A	N/A	25 miles (40 km)	20,533
Bridges	121 feet (37 m)	13,599	N/A	N/A	121 feet (37 m)	13,599
Boundaries	7 miles (12 km)	3,740	N/A	N/A	7 miles (12 km)	3,740
Silviculture	24,266 ac (9 820 ha)	4,176,644	810 ac (328 ha)	49,341	25,076 ac (10 148 ha)	4,225,985
TOTAL		4,278,530		49,341		4,327,871

TABLE 10—Continued

FRA Program 6.1	INDIVIDUALS Unit	INDIVIDUALS Assistance ($)	PULP AND PAPER CO. Unit	PULP AND PAPER CO. Assistance ($)	TOTAL Unit	TOTAL Assistance ($)
Access roads (built & under construction)	2 miles (3 km)	10,283	N/A	N/A	2 miles (3 km)	10,283
Trails (built & under construction)	1 mile (2 km)	1,249	N/A	N/A	1 mile (2 km)	1,249
Bridges	16 feet (5 m)	1,982	N/A	N/A	16 feet (5 m)	1,982
Boundaries	1 mile (2 km)	565	N/A	N/A	1 mile (2 km)	565
Silviculture	6,395 ac (2 588 ha)	845,605	—	—	6,395 ac (2 588 ha)	845,605
TOTAL		859,684		—		859,684

TABLE 11
GROUP FOREST MANAGEMENT ON PRIVATE LANDS, 1987-88
(Forest Resource Development Agreement)

Group Venture	Operating Claim	Share-holders	Active Mgmt. Plans	Area under Management acres	ha	Road Construction miles	km	Ponds	Boundaries miles	km	Silviculture acres	ha	Forest Improvement Claimed	Volume of Wood Sold m^3(stacked)	cords	Mgmt. Fee Contribution to Operating
Pictou	83 546	148	171	17 843	7 221	11	18	11	5	8	1 282	519	$219 940	28 200	7 780	$18 578
North Nova	89 476	126	121	30 564	12 369	17	28	1	8	13	1 329	538	267 768	15 300	4 221	10 033
Baddeck	91 226	164	170	23 206	9 391	8	13	1	20	32	1 203	487	347 824	14 030	3 871	8 964
La Foret	85 595	127	148	8 004	3 239	1	2	—	40	64	210	85	81 919	9 212	2 542	5 889
North Mountain	85 335	80	104	11 367	4 600	8	13	6	6	9	613	248	148 046	7 205	1 988	4 765
Sissiboo	89 848	124	151	16 504	6 679	15	25	10	16	26	563	228	232 746	22 205	6 126	14 831
Conform	79 491	132	158	27 471	11 117	14	22	—	11	17	514	208	265 794	46 757	12 900	19 246
Athol	99 672	94	103	21 992	8 900	19	30	—	13	21	1 675	678	379 240	54 972	15 167	23 175
Denysdale	93 029	50	54	8 367	3 386	9	15	5	6	10	865	350	199 038	8 990	2 480	5 338
Route 223	86 110	92	77	9 000	3 642	9	15	—	11	17	1 134	459	296 969	11 064	3 052	7 576
Coastal	90 242	78	61	5 931	2 400	11	18	1	16	26	232	94	151 151	21 170	5 841	13 395
Lunenburg	85 768	81	90	10 000	4 047	22	35	12	9	15	363	147	221 589	14 540	4 012	7 676
East Guysborough	86 908	51	62	8 604	3 482	11	17	14	11	18	736	298	239 327	13 976	3 856	8 598
Forcnu	95 908	69	75	9 583	3 878	18	29	8	7	11	502	203	208 237	15 192	4 191	8 782
North Colchester	88 472	94	97	10 850	4 391	19	30	5	7	12	684	277	244 244	15 400	4 249	11 171
North Inverness	110 118	127	126	13 324	5 392	23	37	—	12	20	1 198	485	409 270	13 268	3 666	8 581
Celtic Isle	102 348	37	30	4 411	1 785	5	8	1	2	4	623	252	161 282	3 880	1 070	2 300
Antigonish	67 180	54	43	5 837	2 362	—	—	—	—	—	—	—	14 575	—	—	294
TOTAL	1 610 272	1 728	1 841	242 858	98 281	220	355	75	200	323	13 726	5 556	$4 088 959	315 381	87 012	$179 192

TABLE 12
CLASSIFICATION OF FIRES
BY MONTH OF OCCURRENCE, 1987

Month	No. of Fires	Acres	Ha.	Percentage of Total Fires	Percentage of Total Area
January	0	0	0	0	0
February	0	0	0	0	0
March	2	3.1	1.24	.34	.22
April	162	406.6	164.55	27.46	29.39
May	133	783.4	317.05	22.54	56.63
June	32	28.0	11.35	5.42	2.03
July	93	47.1	19.05	15.76	3.40
August	137	81.2	32.88	23.22	5.87
September	26	26.6	10.76	4.41	1.92
October	5	7.3	2.97	.85	.53
November	0	0	0	0	0
December	0	0	0	0	0
TOTAL	590	1383.3	559.85	100.00	100.00

TABLE 13
HUNTING AND NON-HUNTING ACCIDENTS AND RELATED STATISTICS

County	Injury Hunting Accident	Total by Fatality	Total by County
Annapolis	1	—	1
Antigonish	—	—	0
Cape Breton	—	—	—
Cumberland	—	—	—
Colchester	—	—	—
Digby	1	1	2
Guysborough	—	—	—
Halifax	1	—	1
Hants	1	—	1
Inverness	—	—	—
Kings	—	—	—
Lunenburg	—	—	—
Pictou	—	—	—
Queens	2	—	2
Richmond	—	—	—
Shelburne	—	—	—
Victoria	—	—	—
Yarmouth	—	—	—
TOTAL	6	1	7

Game Being Hunted

Deer	3
Rabbits	3
Unknown	1

Type of Weapon Involved

Shotgun	3
Rifle	3
22 Cal.	1

Causes of Accidents

Shooter stumbled and fell	3
Victim out of sight of shooter	2
Unintentional discharge	1
Others (ricochet)	1

Charges Laid as Result of Accidents

Lands & Forests Act	3
Criminal Code	—
Number involving liquor	—

TABLE 13
HUNTING AND NON-HUNTING ACCIDENTS AND RELATED STATISTICS
(Continued)

Hunter Safety Courses	
First-time firearm hunters	5,955
Other firearm hunters	1,505
Bowhunters	380
TOTAL	7,840
Failures:	
Firearm	464
Bowhunter	—
TOTAL	464

Course Graduates Involved in Accidents	
Firearm course	4
Bowhunter course	—
TOTAL	4

Number of Hunters and Fishermen, 1986*

Big Game	100,731	Est. rabbit hunters	30,529
Small Game	31,494	Bear trapping	1,064
Moose	200	Furbearers	3,758
Fishing	73,840	Senior citizen, fishing	5,900
Senior citizen, big and small game	10,526	TOTAL	258,042

Prosecutions, 1986*

Total prosecutions	673
Jacking, uncased gun and shining light prosecutions	121
Warnings	844

TABLE 13
HUNTING AND NON-HUNTING ACCIDENTS AND RELATED STATISTICS
(continued)

Game Taken, 1986*

Deer	57,950	Grouse	90,765
Bear	754	Pheasant	16,324
Moose	185	Hungarian Partridge	1,590
Woodcock	8,026	Rabbits	384,560
Snipe	3,373	Furbearers	61,627
Black ducks	51,768	Trout	1,074,895
Sea Ducks	32,291	Salmon	7,995
Other ducks	38,783	Geese	12,137

*Licenses, Prosecutions, & Game Taken are for previous year as present year's statistics are not available.
·Includes 14,489 Second Permits and 199 Bow Season hunters

Game License Fees, 1987

Deer: Resident $17.00; Non-resident $80.00
Senior Citizens — free
Second permit same as license
Bow season additional fee: Resident $5.00; non-resident $10.00

Bear: Trapping (residents only) — license free.
Hunting license fees: resident $17.00; non-resident $80.00

Rabbits: No license required for residents.
Small game license for non-resident $40.00

Moose: Limit 200 licenses — fee $35.00

Pheasant and grouse: Resident $12.00; non-resident $40.00
Resident senior citizen — free

Furbearers: Mink, muskrat, otter, beaver, fox, bobcat, weasel, fisher, raccoon. License fee $10.00

Fish and Migratory Birds

Regulations and bag limits controlled by federal government.
Provincial salmon license: Resident $15.00; non-resident $35.00.
General fishing license: resident $8.00; non-resident $30.00.
Federal migratory bird license $10.00 (includes Conservation Stamp).
Provincial small game license also required.

TABLE 14
PROVINCIAL CROWN LAND FOREST PRODUCTION
STUMPAGE AGREEMENTS WITH OTHER WOOD-PROCESSING FACILITIES, 1987

Company	Annual Allowable Cut: Sawn Product bd.ft. (m3)	Annual Allowable Cut: Others Products cords (m3(stacked))	Softwood Sawlogs bd.ft. (m3)	Hardwood Sawlogs bd.ft. (m3)	Softwood Pulpwood cords (m3stacked))	Hardwood Pulpwood cords (m3(stacked))	Hardwood Fuelwood cords (m3(stacked))	Studwood cords (m3(stacked))
Barrett Lumber,[a] Sackville								
Caledonia Woodworkers Ltd.[b], Caledonia	800,000 (4 520)							
C.I.P. Inc. (formerly Canexel Inc.), Chester		25,000 (90 614)	118,260 (668)	23,276 (132)	1,655 (5 998)	4,138 (14,997) (palletwood)90 (326)		79 (286) (hwd.)2 (oak)80 (289)
Elmsdale Lumber Ltd., Elmsdale	1,200,000 (6 780)		446,625 (2 523)					
E.M. Comeau & Sons (1977) Ltd., Dartmouth	289,500 (1 636)	1,839 (6 666)	0					
F.W. Taylor Lumber Ltd., Chaswood	1,000,000 (5 650)		541,531 (3 060)	1,000 (6)	1,338 (4 851)		538 (1,949)	40 (146)

TABLE 14—Continued

Company	Annual Allowable Cut: Sawn Products bd.ft. (m^3)	Annual Allowable Cut: Other Products cords (m^3(stacked))	Softwood Sawlogs bd.ft. (m^3)	Hardwood Sawlogs bd.ft. (m^3)	Softwood Pulpwood cords (m^3stacked))	Hardwood Pulpwood cords (m^3(stacked))	Hardwood Fuelwood cords (m^3(stacked))	Studwood cords (m^3(stacked))
G. Royce Hefler Forest Products, Halifax Co.	1,000,000 (5 650)		418,100 (2 362)		83 (301)		121 (438)	
Harry Freeman & Sons, Dartmouth	500,000 (2 825)		310,204 (1 753)		525 (1 904)	635 (2,302)		
Hoeg Bros. Lumber Ltd., Cumberland Co.	450,000 (2 542)		298,553 (1 687)		817 (2 960)		160 (581)	31 (111)
Kingston Lumber & Building Supplies Ltd., Kingston	300,000 (1 695)		38,455 (1 687)					
Ledwidge Lumber Co., Enfield	1,000,000 (5 650)		548 916 (3 101)		907 (3,286)		526 (1 907)	1,366 (4 951)
Lewis Lumber Co. Ltd., Weymouth	400,000 (2 260)		0					
Long Lake Lumber Ltd.[c], Upper Ohio, Shelburne Co.	700,000 (3 955)							

TABLE 14—Continued

Company	Annual Allowable Cut		Softwood Sawlogs	Hardwood Sawlogs	Softwood Pulpwood	Hardwood Pulpwood	Hardwood Fuelwood	Studwood
	Sawn Products bd.ft. (m^3)	Other Products cords (m^3(stacked))	bd.ft. (m^3)	bd.ft. (m^3)	cords (m^3stacked))	cords (m^3(stacked))	cords (m^3(stacked))	cords (m^3(stacked))
Mactara Ltd., Upper Musquodoboit	600,000 (3 390)							
Murray Reeves Forestry Ltd., New Ross	300,000 (1 695)							
Sproule Lumber Ltd., Truro	5,750,000 (32 488)		3,399,329 (19 206)	5,000 (28)	6,626 (24 016)	1,995 (7 231)	1,740 (6 308)	

[a] This agreement allows the company to harvest products from 1979 until such time as they have received 742,842 board feet (4 196 m).

[b] Under a separate agreement, the company was given a license to harvest additional mature sawlogs from stands designed for cutting on other parcels of Crown land.

[c] Under a separate agreement, the company was given a license to cut an additional 1,700,000 board feet (9 605 m) of sawlog material over a 10-year period. In 1985 the mill associated with both licenses burned, and in March 1989 both license agreements were cancelled.

TABLE 15
OFFENCES AND CONVICTIONS
by Statute and Subdivision, 1987

Subdivision		Crown Lands Act	Forests Act	Wildlife Act	Parks Act	Beaches P&P Act	Off-Highways Vehicles Act	MBC Act	TOTALS
Cape Breton North	A	4	28	700	5	2	2	3	744
	B			104				3	107
	C		18	387	1	2	2		410
Cape Breton South	A	10	55	988	17	21	7	39	1137
	B	1	2	43	9				55
	C		30	50	3	3			86
Eastern	A	18	4	538	88	4	2	2	656
	B	4		48	28			2	82
	C	5	2	82	49				138
North Central	A	6	22	282	7	7	4	4	332
	B		8	62	1				71
	C		6	70				4	80
South Central	A	6	79	693	79	8		49	914
	B		7	149	8			8	172
	C		27	109	23			5	164
Valley	A		35	233	6	4		2	280
	B		14	50					64
	C		18	77					95
South Shore	A	1	98	607	14	13	7	43	783
	B		8	122	10		5	7	152
	C		30	147	7	2	6	2	194
Western	A	7	100	421	19	16		56	619
	B		11	84		4		19	118
	C		14	55	8	9		9	95
Total	A	52	421	4462	235	75	22	198	5465
	B	5	50	662	56	4	5	39	821
	C	5	145	977	91	16	8	20	1262

A - Offences known or reported
B - Number of persons charged
C - Warnings issued

Jacking	66
Flashing	23
Uncased rifle	32